

Office Action Summary	Application No. 10/672,890	Applicant(s) MALIK ET AL.	
	Examiner Rakesh K. Dhingra	Art Unit 1763	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 15 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 17-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1) Claim 9 recites the limitation "first plasma element" in line 2. There is insufficient antecedent basis for this limitation in the claim. For the purpose of examination on merits this limitation has been interpreted as "first plasma member".

2) Claims 20, 23, 28 recite the limitation "second tubular member" in line 2. There is insufficient antecedent basis for this limitation in the claim. For the purpose of examination on merits this limitation has been interpreted as "second plasma member".

Response to Arguments

Applicant's arguments filed 4/25/07 have been fully considered and response is given hereunder.

Applicant has amended independent claim 10 by adding new limitation "a source that supplies a polymerizable monomer gas to the first tubular member". Further applicant has added new claims 17-28.

Accordingly claims 1-28 are now pending out of which claims 1-14 and 17-28 are currently active.

Rejections under 35 USC 103 (a)

1) Rejection of claims 1-7 and 10-14 over Jacob in view of Sirhan – applicant argues that combining the Jacob and Sirhan references could give an apparatus that might be suitable for dry-sterilizing a stent but would not result in an apparatus suitable for plasma-coating a stent. Applicant further argues that prior art does not provide a motivation for combining the references.

Examiner responds that claim limitation "to coat a plasma stent" is an intended use limitation. Combination of Jacob and Sirhan references teaches all structural limitations of the claim. As regards

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motivation to combine the references, as indicated in the last office action, it would be obvious to use a substrate holder/support depending upon the shape/structure of the part to be processed, like a mandrel for supporting a stent, in the instant case. Thus Jacob in view of Sirhan teach all limitations of claim 1 and therefore its rejection is maintained. In view of this rejection of dependent claims 2-7 is also maintained.

2) Rejection of claims 1-7 and 10-14 over Usai in view of Sirhan - applicant argues that combining the Usai and Sirhan references would result in an apparatus with a stent mandrel for manufacturing a semiconductor device and such an apparatus can not coat a stent. Applicant further argues that prior art does not provide a motivation for combining the references.

Examiner responds that claim limitation "to coat a plasma stent" is an intended use limitation. Combination of Usai and Sirhan references teaches all structural limitations of the claim. As regards motivation to combine the references, as indicated in the last office action, it would be obvious to carry out a semiconductor manufacturing process like coating by using a substrate holder/support depending upon the shape/structure of the part to be processed, like a mandrel for supporting a stent, in the instant case. Thus Usai in view of Sirhan teach all limitations of claim 1 and dependent claims 8, 9 and therefore the claim rejection is maintained.

Rejection of amended claim 10 - the claim has been rejected under new grounds of rejection as explained below.

Further, balance dependent claims 11-14 and new claims 17-28 have also been rejected under 35 USC 103 (a) as explained below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter

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sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacob (US Patent No. 5,087,418) in view of Sirhan et al (WO 03/037223).

Regarding Claims 1-3, 7: Jacob teaches a plasma apparatus for treating medical devices (Figure 6) comprising:

- a wire basket 25 supporting the object to be plasma processed;
- an inner perforated cylinder 43 (first plasma member) circumscribing the wire basket 25, the first plasma member being grounded;
- a second metallic perforated cylinder 41 (second plasma member) circumscribing the first plasma member 43; and
- an RF source (plasma generating source) in communication with the second plasma member 41.

Jacob teaches a wire basket 25 for substrate support but does not teach that a mandrel for supporting a stent during plasma processing.

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Sirhan et al teach a glow discharge apparatus (Figures 13-15) for film deposition on a stent 70 that is supported by a mandrel 112 (paragraphs 156-166).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use a mandrel for processing a stent as taught by Sirhan et al in the apparatus of Jacob during plasma processing as per the shape of the substrate to be processed.

Further, claim limitation “to coat a stent” is an intended use limitation and since the apparatus of prior art meets the structural limitation of the claim, the same is considered capable of meeting the intended use limitations.

In this connection courts have ruled:

A claim containing a “recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus” if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987).

It is well settled that the intended use of a claimed apparatus is not germane to the issue of the patentability of the claimed structure. If the prior art structure is capable of performing the claimed use then it meets the claim. *In re Casey*, 152 USPQ 235, 238 (CCPA 1967); *In re Otto*, 136 USPQ 459 (CCPA 1963).

Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Danly*, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959). Apparatus claims cover what a device is, not what a device does *Hewlett-Packard Co. V. Bausch & Lomb Inc.*, 15USPQ2d 1525, 1528 (Fed. Cir. 1990)

Regarding Claim 4: Jacob in view of Sirhan et al teach (Figure 10 – Jacob) where the elongated tabulation 94 (object to be treated – stent, in this case) is positioned in the center of the first hollow body {column 9, lines 15-40 - Jacob}.

Regarding Claim 5: Jacob teaches that substrate holder 25 (would include the substrate, that is, stent) does not contact the inner perforated cylinder 43 (first plasma member) [Figure 6].

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Regarding Claim 6: Jacob in view of Sirhan et al teach an apparatus (Figure 10 – Jacob) in which the elongated chamber 91 (first plasma member) is a hollow tubular body in which the elongated tabulation 94 (like a mandrel with stent) is positioned and wherein the second plasma member is an exciter coil 92 wrapped around the elongated chamber 91 (first plasma member) [column 9, lines 15-45 - Jacob].

Claims 1, 8-10, 12-14 and 17-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Usai et al (US Patent No. 5,591,268) in view of Sirhan et al (WO 03/037223).

Regarding Claims 1, 24: Usai et al teach a plasma apparatus (Figures 6A, 6B) for processing wafers 19 comprising:

an internal electrode 22 (first plasma member) circumscribing the wafers 19, the first plasma member being grounded;

an external electrode 21 (second plasma member) circumscribing the first plasma member 43; and

an RF source (plasma generating source) 18 in communication with the second plasma member 21 (column 9, lines 1-45).

Usai et al teaches processing of wafers 19 (it would obviously need a wafer support – not shown) but does not teach a mandrel for supporting a stent during plasma processing.

Sirhan et al teach a glow discharge apparatus (Figures 13-15) for film deposition on a stent 70 that is supported by a mandrel 112 (paragraphs 156-166).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use a mandrel for processing a stent as taught by Sirhan et al in the apparatus of Usai during plasma processing, as per the shape of the substrate to be processed.

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Further, claim limitation “to coat a stent” is an intended use limitation and since the apparatus of prior art meets the structural limitation of the claim, the same is considered capable of meeting the intended use limitations.

In this connection courts have ruled:

A claim containing a “recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus” if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987).

It is well settled that the intended use of a claimed apparatus is not germane to the issue of the patentability of the claimed structure. If the prior art structure is capable of performing the claimed use then it meets the claim. *In re Casey*, 152 USPQ 235, 238 (CCPA 1967); *In re Otto*, 136 USPQ 459 (CCPA 1963).

Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Danly*, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959). Apparatus claims cover what a device is, not what a device does *Hewlett-Packard Co. V. Bausch & Lomb Inc.*, 15USPQ2d 1525, 1528 (Fed. Cir. 1990)

Regarding Claim 8: Usai et al teach a flange 14 (first plate member) in communication with the first plasma member 22 through fixing metal pieces 22b, a flange 13 (second plate member) positioned over the first plate member 14 and in communication with the second plate member 13, and quartz process chamber 10 (insulator) disposed between the first and second plate members to electrically insulate the plate members (column 9, lines 1-45).

Regarding Claim 9: Usai et al in view of Sirhan et al teach the mandrel extends from the first plate member 14 into the first plasma member 22 (Figure 6A).

Regarding Claims 10, 14: Usai et al in view of Sirhan et al teach all limitations of the claim (as already explained above under claim 1) including that the apparatus comprises:

An external electrode 21 (first tubular member);

A grounded internal electrode 23 (second tubular member) in which a substrate can be placed (in wire basket 25), which is electrically isolated from the first tubular member 20; and

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an RF source 18 in communication with the external electrode 21 (first tubular member);
gas supply pipe 23 (source) for supplying process gas into the process space 28. Usai et al also teach that gas supply pipe 23 can also be disposed in the plasma generation space (that is, in the first tubular member) [Figures 9A-9C and column 9, lines 1-55 and column 11, line 62 to column 12, line 25]. Further, claim limitation “a polymerizable monomer gas” is a process limitation and since the structure of prior art meets the claim limitation, the same is considered capable of meeting the process limitation. Claim limitation “implantable medical device” is an intended use limitation and since the structure of prior art meets the claim limitation, the same is considered capable of meeting the intended use limitation.

In this connection courts have ruled:

A claim containing a “recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus” if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987).

It is well settled that the intended use of a claimed apparatus is not germane to the issue of the patentability of the claimed structure. If the prior art structure is capable of performing the claimed use then it meets the claim. *In re Casey*, 152 USPQ 235, 238 (CCPA 1967); *In re Otto*, 136 USPQ 459 (CCPA 1963).

Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Danly*, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959). Apparatus claims cover what a device is, not what a device does *Hewlett-Packard Co. V. Bausch & Lomb Inc.*, 15USPQ2d 1525, 1528 (Fed. Cir. 1990)

Regarding Claim 12: Usai et al teach that plasma is generated within the external electrode 21 (first tubular body) with the help of RF source 18 (Figure 6A).

Regarding Claim 13: Usai et al teach that internal electrode 22 (second tubular body) is grounded (Figure 6A).

Regarding Claims 17, 18: Usai et al teach that plasma generating source in the apparatus (RF source 18 and internal and external electrodes 22, 21 generate gaseous plasma. Usai et al also teach that apparatus can be used for other plasma processes including ashing, etching and deposition. Claim

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limitations modifying surface of the stent and forming a polymer film on stent are intended use limitations and since the structure of prior art meets the claim limitation, the same is considered capable of meeting the intended use limitation.

Regarding Claims 19, 20: Usai et al teach a gas supply pipe 23 (process gas source) which can also be disposed inside the external electrode 21 (second plasma member) [Figures 9A-9C and column 11, line 62 to column 12, line 25]. Claim limitations plasma polymerizable monomer is a functional limitations and since the structure of prior art meets the claim limitation, the same is considered capable of meeting the functional limitation.

Regarding Claims 21, 26: Usai et al teach that plasma generating source in the apparatus (RF source 18 and internal and external electrodes 22, 21 generate gaseous plasma. Usai et al also teach that apparatus can be used for other plasma processes including ashing, etching and deposition. Claim limitations “to induce polymerization of a plasma polymerizable polymer on a surface of the stent to form a polymer film” is an intended use limitations and since the structure of prior art meets the claim limitation, the same is considered capable of meeting the intended use limitation.

Regarding Claim 22, 23, 25, 27, 28: Usai et al teach a gas supply pipe 23 (process gas source) which can also be disposed inside the external electrode 21 (second plasma member) [Figures 9A-9C and column 11, line 62 to column 12, line 25]. Claim limitations “plasma polymerizable monomer is in a gaseous form” is a functional limitation and since the structure of prior art meets the claim’s structural limitation (it can supply process reactant in gaseous form), the same is considered capable of meeting the functional limitation.

Claims 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Usai et al (US Patent No. 5,591,268) in view of Sirhan et al (WO 03/037223) as applied to claim 10 and further in view of Jacob (US Patent No. 5,087,418).

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Regarding Claim 11: Usai et al in view of Sirhan teach all limitations of the claim including internal electrode 22 (second tubular member) having perforated body (Figure 6B – Usai et al).

Usai et al in view of Sirhan et al do not teach first tubular member includes body with holes disposed therein.

Jacob teaches a plasma apparatus for treating medical devices (Figure 6) comprising:

a wire basket 25 supporting the object to be plasma processed;

an inner perforated cylinder 43 (first plasma member) circumscribing the wire basket 25, the first plasma member being grounded;

a second metallic perforated cylinder 41 (second plasma member) circumscribing the first plasma member 43; and

an RF source (plasma generating source) in communication with the second plasma member 41. Jacob also teaches an embodiment (Figure 2) wherein the apparatus comprises two tubular members 15, 15a both of which are perforated, to facilitate lower temperature processing (column 4, lines 10-60).

Therefore it would have been obvious to one of skills in the art at the time of the invention to use first tubular member with a perforated as taught by Jacob et al in the apparatus of Usai et al in view of Sirhan to facilitate low temperature processing.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing

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date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rakesh K. Dhingra whose telephone number is (571)-272-5959. The examiner can normally be reached on 8:30 -6:00 (Monday - Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on (571)-272-1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Rakesh K. Dhingra



Karla Moore
Primary Examiner
Art Unit 1763